REMARKS/ARGUMENTS

The amendments set out above and the following remarks are responsive to the points raised by the Office Action dated January 3, 2007. In view of the amendments set out above and the following remarks, reconsideration is respectfully requested.

The Pending Claims

Claims 1-28 remain pending. Claim 1 has been amended to describe the invention more clearly. No new matter has been added, and the basis for the amended claim language may be found within the original specification, claims, and drawings.

Claim 1 is supported at, for example, page 4, line 22 of the specification.

The Office Action

Claims 1-13, 20, 22, and 24-28 were rejected under 35 U.S.C. § 103 as unpatentable over U.S. Patent No. 5,352,507 to Bresson et al. (hereinafter, "Bresson") in view of U.S. Patent No. 6,703,095 to Busshoff et al. (hereinafter, "Busshoff") and U.S. Patent No. 5,347,927 to Berna et al. (hereinafter, "Berna").

Claims 14-19 were rejected under § 103 as unpatentable over Bresson in view of Busshoff and Berna as applied to claims 1 and 2, and further in view of U.S. Patent No. 5,754,931 to Castelli et al. (hereinafter, "Castelli").

Claim 21 was rejected under § 103 as unpatentable over Bresson in view of Busshoff and Berna as applied to claims 1 and 2 above, and further in view of U.S. Patent No. 6,699,419 to Kia et al. (hereinafter, "Kia").

Claim 23 was rejected under § 103 as unpatentable over Bresson in view of Busshoff and Berna as applied to claims 1 and 2 above, and further in view of U.S. Patent Publication No. 2002/0182328 to Asai et al. (hereinafter, "Asai").

Each of these rejections is separately and respectfully traversed.

With respect to the rejection of claims 1 and 28, the only independent claims, the Office Action correctly acknowledges that Bresson does not teach the thickness of the

stiffening layer to be 0.5 mm or less and does not state to what extent the modulus of elasticity in the circumferential direction should go beyond the 200 MPa as stated.

Amended claim 1 also recites that the stiffening layer is capable of undergoing a deviation of 100 to 500 microns without fracture. Bresson does not teach a printing blanket including a stiffening layer that is capable of undergoing a deviation of 100 to 500 microns without fracture, as claimed.

The Office Action characterizes elastomer layer 5 as a circumferential stiffening layer. Bresson teaches that the elastomer layer 5 "do[es] not substantially compress when subjected to the customary pressures between nipped cylinders which would otherwise compress cellular rubber or foam layers" (col. 5, lines 26-29). Bresson further teaches that the elastomer layer 5 controls the web and image resolution during operation by "preventing bulges and undulations in compressible foam layers during operation" (col. 5, lines 31-36). Since Bresson's elastomer layer does *not* substantially compress when subjected to the customary pressures between nipped cylinders and because Bresson's elastomer layer 5 *prevents* bulges and undulations in compressible foam layers during operation, Bresson's elastomer layer does not meet the requirement of being capable of undergoing a deviation of 100 to 500 microns without fracture, as claimed in claim 1.

In contrast to Bresson's inflexible elastomer layer 5, the printing blanket of amended claim 1 includes a flexible circumferential stiffening layer. This flexibility is defined by the capability of undergoing a deviation of 100 to 500 microns, and it is this flexibility which enables the stiffening layer to transmit any deformations to the compressible layer and to regulate the width of the printing nip and heterogeneities resulting from overloads or lack of pressure at points in the transverse direction or in the rotation direction (specification, e.g., page 4, line 22 to page 5, line 2). In contrast, Bresson's elastomer layer 5 does not substantially compress when subjected to the customary pressures between nipped cylinders and Bresson's elastomer layer 5 prevents bulges and undulations in compressible foam layers during operation. Thus, Bresson's elastomer layer 5 is thick (1 mm) and inflexible, whereas the claimed stiffening layer is thin (less than 0.5 mm) and flexible. Accordingly, Bresson cannot render amended claim 1 obvious.

Neither Busshoff nor Berna cures the deficiencies of Bresson.

Busshoff is silent with respect to the flexibility of the reinforced layer 12. However, the reinforced layer 12 of Busshoff does not have to flexible because it merely carries the compressible layer 13. Any irregularities or heterogeneities coming from the printing layer side of the sleeve would be directly accommodated by the compressible layer 13 and would not be transmitted by the reinforced layer 12 because the compressible layer 13 is directly underneath the printing sleeve 14 and above the reinforced layer 12. Therefore, reinforced layer 12 does not have to be flexible, as claimed.

According to the Office Action, Busshoff teaches a thin-walled reinforced sleeve for a printing cylinder using a reinforced polymer layer 12 disposed on top of a compressible layer 34 (Figure 6). The Office Action cites Busshoff as teaching a reinforced polymer layer 12 having a thickness from 0.1 mm to 0.8 mm. According to the Office Action, it would have been obvious to one of ordinary skill in the art to provide the printing sleeve of Bresson with a thin-walled reinforced polymer layer as taught by Busshoff in order to control the overall thickness of the printing sleeve and at the same time achieve exceptionally high tensile strength in the circumferential direction.

However, the claimed thickness of the stiffening layer, as claimed in claims 1 and 28, along with the claimed deviation capability, are specifically designed to transmit irregularities from the printing side of the blanket to the compressible layer. In this way, the irregularities coming from overloads or pressure points originating from the printing layer side may be compensated for by compression provided by the compressible layer, located radially underneath the stiffening layer in the claimed printing blanket. Therefore, the position of the stiffening layer within the successive order of the layers is important to the thickness of the stiffening layer.

According to the Office Action, Busshoff does teach the claimed order of the printing blanket, with successively from the interior to the exterior, a compressible layer 34, reinforced layer 12, and printing layer 14. However, compressible layer 34 of Busshoff is only a part of the cylinder 30; it is not part of the printing blanket 10: "...cylinder 30 includes a compressible layer 34 thereon" (col. 9, lines 32-34). Also, Busshoff teaches that the compressible layer 34 "acts to cushion sleeve 10," which indicates that the compressible layer

34 is a structure separate from the printing blanket (col. 9, lines 34-37). Therefore, Busshoff does not teach the claimed order of the layers of the printing blanket.

The reinforced layer 12 of Busshoff, therefore, is the radially innermost layer, supporting both the compressible layer 13 and the printing layer 14. Accordingly, the reinforced layer 12 of Busshoff cannot transmit irregularities coming from overloads or pressure points on the printing layer side to the compression layer 13 *of the sleeve* (not the cylinder) because the reinforced layer 12 is not between the printing layer 14 and the compression layer 13. On the contrary, the reinforced layer 12 of Busshoff is beneath both the compression layer 13 and the printing layer 14. Therefore, Busshoff does not teach one of ordinary skill in the art to provide a stiffening layer having the claimed thickness such that it can transmit irregularities to a compressible layer of the printing blanket located radially underneath it, because Busshoff does not teach a blanket having a compressible layer radially underneath a stiffening layer. Thus, Busshoff does not teach a printing blanket having a stiffening layer *in the claimed position* with the claimed thickness. Accordingly, the combination of Bresson and Busshoff cannot render claims 1 or 28 obvious.

Berna teaches a spirally integrated reinforced layer used *instead of* separate concentric compressible layers and reinforcing layers (col. 1, line 63 to col. 2, line 1). As shown in Figure 6 of Berna, this spirally integrated layer 14 includes alternating compressible 20 and stiffening layers 18 spirally wounded. Berna teaches providing a tensile modulus in the circumferential direction of 50-2000 megapascals and a tensile modulus in the radial direction of 5 to 50 megapascals in this spirally integrated layer 14 (col. 9, lines 56-60). The teachings of the Young's modulus with respect to these alternating, spirally wound layers 18 and 20 of Berna does not teach one of ordinary skill in the art to provide the same Young's modulus in a stiffening layer that is coaxial and concentric with the compressible layer, as claimed. Moreover, applying the teachings of Berna to the sleeve of Bresson would result in a structure that only includes the external printing layer of Bresson being supported by the spirally integrated structure 14 of Berna, which would only provide the structure of Berna *per se*. Therefore, the combination of Bresson and Berna does not render claims 1 or 28 obvious.

For the reasons set forth above, the obviousness rejection of independent claims 1 and 28 cannot be maintained. Because the rejections of the dependent claims as obvious under 35

U.S.C. § 103 rely on the propriety of the rejection of independent claim 1, the rejections for obviousness of those claims fall with the failure of the rejection of claim 1. Castelli, Kia, and Asai do not cure the deficiencies of Bresson, Busshoff, and Berna, and therefore the rejections of the dependent claims fall with the rejection of independent claim 1.

Conclusion

Applicants respectfully submit that the patent application is in condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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Date: Jun. 25, 2007

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